

DESCRIPTION

β -ALANINE DERIVATIVE AND A PROCESS FOR THE PREPARATION THEREOF

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TECHNICAL FIELD

The present invention relates to β -alanine derivative and a pharmaceutically acceptable salt thereof. More particularly, it relates to β -alanine derivative and a salt thereof which is glycoprotein IIb/IIIa antagonist, inhibitor of blood platelets aggregation and inhibitor of the binding of fibrinogen to blood platelets.

BACKGROUND ART

In European Patent Application No. 512,831 A1, there are disclosed fibrinogen receptor antagonists.

In European Patent Application No. 445,796 A2, there are disclosed inhibitor of blood platelets aggregation.

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DISCLOSURE OF INVENTION

The present invention relates to β -alanine derivative and a salt thereof. More particularly, it relates to β -alanine derivative and a salt thereof which is glycoprotein IIb/IIIa antagonist and inhibitor of platelet aggregation, and useful as :

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a drug for the prevention and/or the treatment of diseases caused by thrombus formation such as arterial thrombosis; arterial sclerosis; ischemic heart diseases [e.g. angina pectoris (e.g. stable angina pectoris, unstable angina pectoris including imminent infarction, etc.), myocardial infarction (e.g. acute myocardial infarction, etc.), coronary thrombosis, etc.]; ischemic brain diseases [e.g. cerebral infarction (e.g. cerebral thrombosis (e.g. acute cerebral thrombosis, etc.), cerebral embolism, etc.), transient cerebral ischemia

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(e.g. transient ischemic attack, etc.), cerebrovascular spasm after cerebral hemorrhage (e.g. cerebrovascular spasm after subarachnoid hemorrhage, etc.), etc.]; pulmonary vascular diseases (e.g. pulmonary thrombosis, pulmonary embolism etc.); peripheral circulatory disorder [e.g. arteriosclerosis obliterans, thromboangiitis obliterans (i.e. B rger's disease), Raynaud's disease, complication of diabetes mellitus (e.g. diabetic angiopathy, diabetic neuropathy, etc.), phlebothrombosis (e.g. deep vein thrombosis, etc.), etc.] or the like;

a drug for the prevention and/or the treatment of restenosis and/or reocclusion such as restenosis and/or reocclusion after percutaneous transluminal coronary angioplasty (PTCA), restenosis and/or reocclusion after the administration of thrombolytic drug (e.g. tissue plasminogen activator (TPA), etc.) or the like;

a drug for the adjuvant therapy with thrombolytic drug (e.g. TPA, etc.) or anticoagulant (e.g. heparin, etc.);

a drug for the prevention and/or the treatment of the thrombus formation in case of vascular surgery, valve replacement, extracorporeal circulation [e.g. surgery (e.g. open heart surgery, pump-oxygenator, etc.) hemodialysis, etc.], transplantation, or the like;

a drug for the prevention and/or the treatment of disseminated intravascular coagulation (DIC), thrombotic thrombocytopenia, essential thrombocytosis, inflammation (e.g. nephritis, etc.), immune diseases, or the like;

a drug for inhibiting of metastasis; or the like.

The β -alanine derivative of the present invention is expected to be useful as an inhibitor of cell adhesion and so is expected to be useful as

a drug for the prevention and/or the treatment of disseminated intravascular coagulation (DIC), thrombotic